

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph 0005 with the following paragraph:

[0005] One aspect of the present teachings relates to a system for interrogating a sample using one or more probes configured to be responsive to sample particles. The one or more probes generates one or more identifiable signals following interaction with the sample particles. The sample composition is resolved, at least in part, by identifying the signals associated with each constituent probe of the one or more probes. The one or more identifiable signals comprise a first signal component indicative of a relative abundance of **[[a]]** first particles and a second signal component indicative of a relative abundance of **[[a]]** second particles. The system comprises a detector configured to detect at least a portion of the one or more identifiable signals associated with the constituent probes of the one or more probes. The position of each constituent probe and the signal arising therefrom are used to identify the presence or absence of particles contained within the sample. The detector is configured to operate at different configurations that result in different detector output signals in response to the one or more identifiable signals. The system further comprises a controller configured to control the detector's operating configuration such that the detector can be operated at a first configuration and a second configuration. The first configuration is adapted to measure the first signal component in an effective manner and the second configuration is adapted to measure the second signal component in an effective manner. The controller is further configured to combine the measurements of the first and second signal components at their respective first and second configurations so as to yield a representation of the one or more identifiable signals that includes the first and second signal components. The detector's ability to be operated at the first and second configurations facilitate an improved identification of the presence or absence of particles contained in the sample when the range of relative abundances of the particles is relatively large.